

ABSTRACT OF THE DISCLOSURE

A method and related apparatus for reproducing a periodic signal received over a communication channel, or signal window of a desired profile, wherein the resolution of the reproduced signal or window is not limited by a digital sampling interval. The profile can be selected to match and compensate for known or estimated characteristics of a communication channel. A frequency difference, due to a Doppler frequency shift or other errors between received signals and locally generated signals, is determined in a receiver and utilized to derive a fine code phase measurement that is then usable to generate a succession of magnitudes that reproduce the desired signal or window profile.